

Fall 2012 Senior Design Ethics Assignment
Team eLation Nation:
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Discussion 2:

You know that a co-worker and longtime friend has a drug problem. Do you bring this issue to management knowing that it can lead to this person's job termination? What if errors by this person can endanger lives?

Initially there is an issue with ACM 1.7 (Respect privacy of others) and potentially 1.8 (Honor confidentiality). Bringing up the drug issue to management without first discussing it with the co-worker could be a substantial violation of their privacy, especially if the co-worker told you or someone else about the drug problem in confidence. However, not bringing up the problem could violate ACM 2.3 (Know and respect existing laws). With that in mind, if the drug problem is not affecting the co-workers work and their job does not have the potential to endanger lives, we would keep their privacy and not bring it up to management. If however the person does have the power to endanger lives and their drug problem is evident in the workplace we would bring up the issue with management to address ACM 1.2 (Avoid harm to others).

Discussion 5:

You really need some cash flow in your software engineering business but have no expertise in embedded programming. You are approached by a customer wanting something that they are unaware is embedded development. How do you proceed?

In this situation we believe you should refer to ACM 1.3 (Be honest and trustworthy). You should be upfront with the customer by stating that you don't have the full skillset for the product they'd like you to develop and explain that it will require embedded development. With that said, you could then explain to the customer that you are willing to either learn about embedded development or hire someone who has expertise in that field to make the product they are asking for. You would of course then need to explain this will take extra time and money. From there the customer can make a decision based on a full understanding of the problem. By explaining this we are upholding our honesty and integrity.

If we were to not explain this beforehand we would be violating ACM 2.6 (Honor contracts, agreements, and assigned responsibilities) because there is an implied understanding with the customer that you do in fact have the knowledge/resources to fulfill the commitment in a timely manner. You would most likely run overtime and over budget without mutual understanding of the initial lack of knowledge/resources.

Discussion 8:

An embedded system you are working on has a mean time to failure of 20 years. Marketing advertises this unit as having a 20 year lifespan. Should you care about how precise the language is in the media? Does it matter what the item is designed for?

The terminology used in marketing is very subjective and the media may repeat the marketing claims with different wording. The change in wording can take “20 year lifespan” to “It will last for 20 years”, which is clearly not what the product will do. An important caveat here is the variability in time to product failure. If the products last from 10 to 30 years, the “20 year lifespan” is a critically flawed statement, but if the product lasts from 19 to 21 years, the claim of a 20 year lifespan is more substantial. However, by not being clear, your marketing department is opening the company up to lawsuits (False Advertising, etc.). You are also violating ACM 1.3 (Be honest and trustworthy) by not correctly stating the situation. You are also violating ACM 2.5 (Give comprehensive and thorough evaluations of computers systems and their impacts, including analysis of possible risks). The statement of a 20 year lifespan is neither clear, nor comprehensive, in that it obscures the truth about the product. Finally, ACM 3.4 (Ensure that user’s needs are clearly articulated and later validate the system to see that it meets requirements) is violated in that the consumers may be misled about your product by your marketing department. The final system cannot meet the requirements that the users expect it to meet.

Discussion 9:

You are an employee of an education software company and are also on the local school board. The board is asked to weigh in on IT decisions. Are you an expert witness? Or is this a problem?

In this situation ACM 1.3 (Be honest and trustworthy) should be addressed. When asked by the board to give your professional opinion you should do your best to give your best unbiased input. This may mean pointing out weak spots in your own company’s software or giving credit to a competitor’s product. If you believe your company has the best software available you should explain why. If the board is asking you they most likely trust your professional opinion and trust you to be honest with them. Trying to sell the local school board your company’s product simply for the good of your own company rather than for the good of the school would be unethical.